National Leprosy Eradication Programme

National Leprosy Eradication Programme (NLEP)
Programmatic Management of Leprosy

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Learning Objectives

- **At the end of the session, the participants should be able to:**
  - To discuss the milestones in NLEP with programme objectives and current strategies
  - To discuss the implementation of NLEP at various levels
  - To describe the programmatic management of leprosy

NLEP – National Leprosy Eradication Programme

Introduction:

- NLEP is a centrally sponsored public health programme of GOI
- It has evolved over a period of time with remarkable changes from NLCP to NLEP
- Various milestones are there in the programme to reach the ultimate goal of leprosy free India
- Multiple stakeholders in the programme

NLEP Emblem

- Symbolizes beauty and purity in **lotus**:
- Leprosy can be cured and a leprosy patient can be a useful member of the society in the form of a partially affected thumb; a normal fore-finger and the shape of **house**;
- the symbol of hope and optimism in a **rising sun**.

NLEP – Milestones (1)

Year	PROGRAMME MILESTONES	Key implementations
Before 1955	Gandhi Memorial Leprosy Foundation (GMLF) Wardha / Hind Kusht Nivaran Sangh / NGOs	Survey, Education and Treatment (SET) programme Precursor for NLCP and organized leprosy control services
1955	National Leprosy Control Programme (NLCP)	LCU – 4.5 L popl, SET centres – PR 5/1000 Dapsone Monotherapy
1983	National Leprosy Eradication Programme (NLEP)	Introduction of MDT in Phases, initially high endemic districts Urban leprosy centres , Mobile treatment units
1991	World Health Assembly resolution – 44.9	Eliminate leprosy as PHP at global level by the year 2000 [PR < 1/10000 popl]
1993 – 2000	First phase World Bank supported project	MDT made available to all registered patients, NLEP extended to all districts in the country Midterm appraisal of NLEP (1997)
1998 - 04	Modified Leprosy Elimination Campaign (MLEC) SAPEL (2000)	Increasing awareness about leprosy, training to GHC personnel and to detect the hidden cases [> 1 Million cases detected] Difficult, inaccessible/hard to reach population

NLEP – Milestones (2)

Year	PROGRAMME MILESTONES	Key implementations
2001-04	World Bank supported project II phase	Decentralization of NLEP responsibilities, integration under general health care system, training GHC personnel, Surveillance for early diagnosis with prompt MDT, awareness for voluntary reporting
2002	National Health Policy 2002 Simplified Information System introduced	NHP set the goal of leprosy elimination by 2005 SIS - Better monitoring of NLEP with recording and reporting made easier for GHC staff.
2004-05	Block Leprosy Awareness Campaign (BLAC)	High priority districts & blocks with an aim to increase the awareness for self reporting, detection of hidden cases with capacity building of service providers
Dec 2005	Leprosy elimination as Public Health Problem	PR <1/10000 (0.95) elimination declared at the National level
2005	National Rural Health Mission (NRHM)	Vertical programme integrated with general health care system under NRHM Dist. Nucleus Team (DNT) – Health societies Urban leprosy control programme

NLEP – Milestones (3)

Year	PROGRAMME MILESTONES	Key implementations
2006	Disability Prevention & Medical Rehabilitation (DPMR) introduced	Guidelines for management at primary, secondary and tertiary level.
2012	12th plan [2012 – 2017]	Special action plan for 209 high endemic districts in 16 States/UTs Target to reduce the visible disabilities <1 per 10,00,000 population in by 2020.
2014	Upgraded Simplified Information System (USIS) implementation	ULF formats introduced for uniformity and better decision making
2016-17	Newer initiatives in the programme Three Pronged strategy Chemoprophylaxis	LCDC – 14 day active case detection campaign in high endemic districts FLC – non-endemic districts Special plan for hard to reach areas SDR implementation to eligible contacts of new cases Immunotherapy - MIP Vaccine as pilot phase
2017	Sparsh Leprosy Awareness Campaign (SLAC)	Increasing the awareness, addressing high level of stigma & discrimination - Convening special Grama sabha meeting

NLEP – Milestones (4)

Year	PROGRAMME MILESTONES	Key implementations
2017 - 18	Newer initiatives: Introduction of "NIKUSTH" ASHA based Surveillance for Leprosy Suspects (ABSULS)	Real time monitoring of leprosy patients across the country and facilitating better monitoring and evaluation of NLEP. ABSULS - active surveillance of leprosy suspects with prioritizing leprosy case detection by ASHA & treatment followup
2018 - 19	Sparsh Leprosy Elimination Campaign (SLEC) 150th Birth anniversary of Mahatma Gandhiji	Enhancement of recently launched initiatives – LCDC, SLAC G2D target to reduce <1case/Million & reduce backlog of RCS cases Grade II disability investigation
2018 -19	WHO Guidelines for Diagnosis, treatment and prevention of Leprosy	Evidence based recommendations in accordance with procedures established by the WHO Guidelines Review Committee Independent Evaluation of NLEP by WHO (2019)

NLEP – Milestones (5)

Year	PROGRAMME MILESTONES	Key implementations
2019	Convergence of leprosy screening under major programmes of National Health Mission	i) Comprehensive Primary Health Care of of Ayushman Bharat - Community Based Assessment Checklist (CBAC) to screen 30+ popl. at HWCs ii) Rashtriya Bal Swasthya Karyakaram (RBSK) to screen children
2020	Active Case Detection and Regular Surveillance (ACD & RS)	ACD & RS guidelines rolled out – active case finding to be continuous and regular Flexibility for states to plan and implement Frontline workers (FLWs)
	Convergence under Rashtriya Kishore Swasthya Karyakaram (RKSK)	RKSK – screening and counselling of adolescent children District Award Scheme for achievements in NLEP

NLEP VISION:

“Leprosy-Free India”

NLEP MISSION:

“to provide quality leprosy services free of cost to all sections of the population, with easy accessibility, through the integrated healthcare system, including care for disability after cure of the disease”

NLEP Objectives:

S No	Objectives	Current levels*
1.	To reduce the prevalence rate to less than 1/10,000 population at sub national and district level.	**85% districts**
2.	To reduce Grade II disability % to < 1 among new cases at National level	**2.4%**
3.	To reduce Grade II disability cases to < 1 case per million population at National level.	**1.96**
4.	Zero disabilities among new Child cases	**63 cases**
5.	Zero stigma and discrimination against persons affected by leprosy	**>100 laws**

*2019-20 data

NLEP Strategies:

1. Decentralized integrated leprosy services through General Health Care system.
2. **Early detection & complete treatment of all new leprosy cases.**
3. Carrying out house hold contact survey for early detection of cases
4. **Capacity building of all general health services functionaries**
5. Involvement of ASHAs in the detection & completion of treatment of leprosy cases on time
6. **Strengthening of Disability Prevention & Medical Rehabilitation (DPMR) services.**
7. **IEC activities** in the community to improve self reporting to PHC and reduction of stigma.
8. **Intensive monitoring and supervision at Health and Wellness centres and at PHC/CHC.**

Recent strategies in NLEP

1. Three pronged strategy- **LCDC, FLC**, Hard to reach areas
2. ASHA based Surveillance for Leprosy Suspects (**ABSULS**)
3. 'Sparsh Leprosy Awareness Campaign'(**SLAC**)
4. Post Exposure Prophylaxis - Single Dose Rifampicin (**PEP-SDR**)
5. Immunoprophylaxis - Mycobacterium indicus Pranii (**MIP**) vaccine
6. Implementation of online reporting system ('**Nikusth**') for improved monitoring and supervision
7. Detailed investigation Grade II disability cases
8. Drug resistance surveillance
9. Modelling studies in leprosy
10. Active Case Detection & Regular Surveillance **(ACD & RS)**
11. District Award Scheme for achievements in NLEP

Decentralized planning for achievements of results

- All the activities of NLEP was planned, implemented and monitored under the umbrella of **NHM**
- Decentralized planning through district health plans, formulated through bottom up process
- Programme Implementation Plan (PIP) should be prepared as a **result oriented process**.
- Funds sent to states through State Health Societies

- Improved early case detection & case management
- Stigma reduced
- Development of leprosy expertise sustained
- Research supported evidence based programme practices
- Monitoring supervision and evaluation system improved
- Increased participation of persons affected by leprosy in society
- Programme management ensured

NLEP - Institutional framework & Programme management

Centre level	• Ministry of Health & Family Welfare • DGHS • Central Leprosy Division - DDG (L) • Training Institutes - CLTRI, RLTRIs
State level	• State Health Society • State Leprosy Officer / State Leprosy Consultant
District level	• District Health Society • District Leprosy Officer / Deputy Director • District Nucleus Team (DNT)
Block level	• Block PHC / CHC - Rogi Kalyan samiti / PRI • Block Medical Officer / incharge MO CHC
PHC level	• PHC - Rogi Kalyan samiti / Panchayati Raj Institution • Medical Officer
Sub-Centre level / Health & Wellness Centre	• Grama Panchayat • Male / Female Health Worker
Village level	• Village Health & Sanitation Committee • ASHA / AWW

Job responsibilities

Medical Officer

- Planning of NLEP activities
- Case Confirmation, treatment, Lepra reaction Mx, referral of complications
- On Job Training to PHC Staff
- Supervision & Monitoring
- Review of activities & Feedback to DNT

HS/ HI / ANM/ MPHW/ VHN

- Suspect identification
- Availability of MDT and providing MDT, compliance
- Record Maintenance & Report Preparation
- IEC activities
- DPMR activities
- Supervision of ASHA/ AWW / Volunteer
- Assist MO

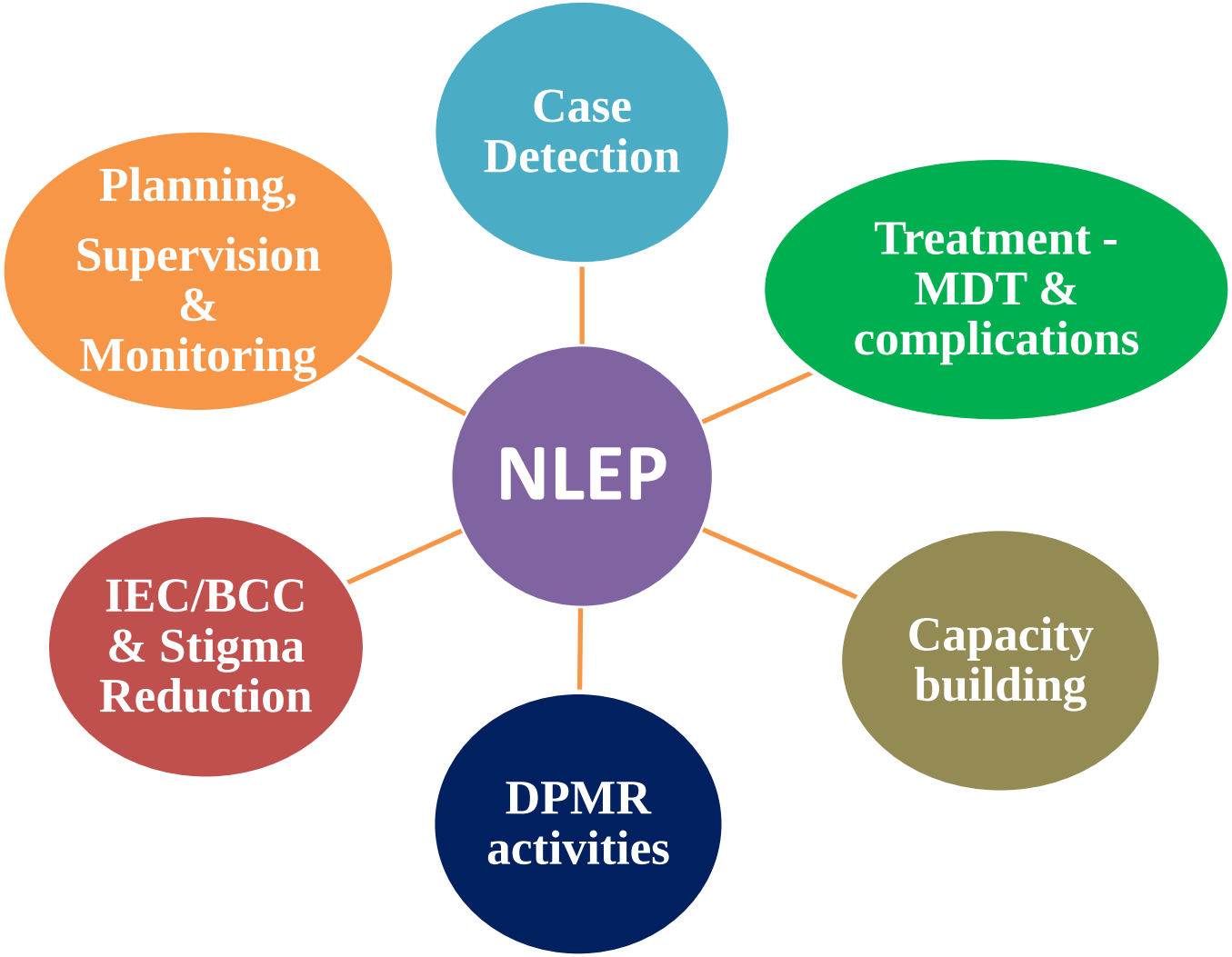
ASHA/ AWW

- Suspect identification & referral to PHC
- Timely completion of treatment
- Counselling & IEC
- Contact Screening, support for active case detection campaigns

District level

- Districts remain the core centre for NLEP activities
- District Nucleus Team (DNT), headed by DLO with other necessary staff.
- District PIP is prepared by the DNT by compiling the action plans from block/PHC level and forwarded to state.
- Regular capacity building of health care workers
- Supervision, Monitoring & Evaluation of NLEP in the district
- Budget utilization and statement of expenditure (SOE)

NLEP activities – Functional Domains



Programmatic management of leprosy (1)

Case detection activities

- Suspect identification
- Case diagnosis & confirmation
  - Govt. & Non-Govt.
  - Guidance & support to field workers
- Difficult to diagnose, reactions & complications – identification & referral services
- Survey – Routine / Active surveys
- School health activities – screening of children
- Contact screening as per guidelines
- Special activities

Programmatic management of leprosy (2)

Treatment

- Initiation of MDT & ensuring Compliance
- Adverse effects monitoring
- Defaulter retrieval
- Treatment for complications
- Drugs
  - MDT availability
  - Supportive drugs: steroids, others
- Free of cost

Treatment of leprosy

WHO Classification:

Characteristics	Pauci-bacillary (PB)	Multi-bacillary (MB)
Skin lesions	1 – 5 lesions	6 and above
Peripheral nerve involvement	No nerve / only one nerve involvement	> 1 nerve irrespective of no. of skin lesions
Skin smear	**Negative at all sites**	**Positive at any site**

 # Operational Classification – helps in selecting correct combination of drugs for a given patient

Treatment of leprosy

- MDT – Cap. Rifampicin, Tab. Dapsone & Cap. Clofazimine
- Standard regimen of MDT
- MDT provided in convenient to use Blister Calendar Packs (BCPs)
- Four weeks / 28 days
- Dosage

Rifampicin	: 10mg/kg body weight, monthly once
Dapsone	: 2mg/kg body weight, daily
Clofazimine	: 1 mg/kg body weight daily & 6mg/kg body weight, monthly once

Indications for prescribing MDT

New case

- ✓ Person with signs of leprosy who have never received treatment before

Other case

- ✓ under NLEP all previously treated cases, who need further treatment are recorded as other cases

Relapse:
Re-occurrence of the disease at any time after the completion of full course of treatment.

Re-entered for treatment:
These are previously treated cases, where clinical assessment shows requirement of further treatment and patient admits that treatment was not completed.

Referred cases:
Patient referred for completion of treatment (remaining doses) by tertiary or second level institutions after diagnosis and issue of first dose, or from another Health centre on patient request or migratory patient from another District/State

Re-classified:
Persons with PB leprosy; reclassified to MB and need full course of MB treatment.

A person who is residing for **more than six month** and is likely to stay till completion of treatment, be recorded as **indigenous case** and will not be categorized under “other cases”.

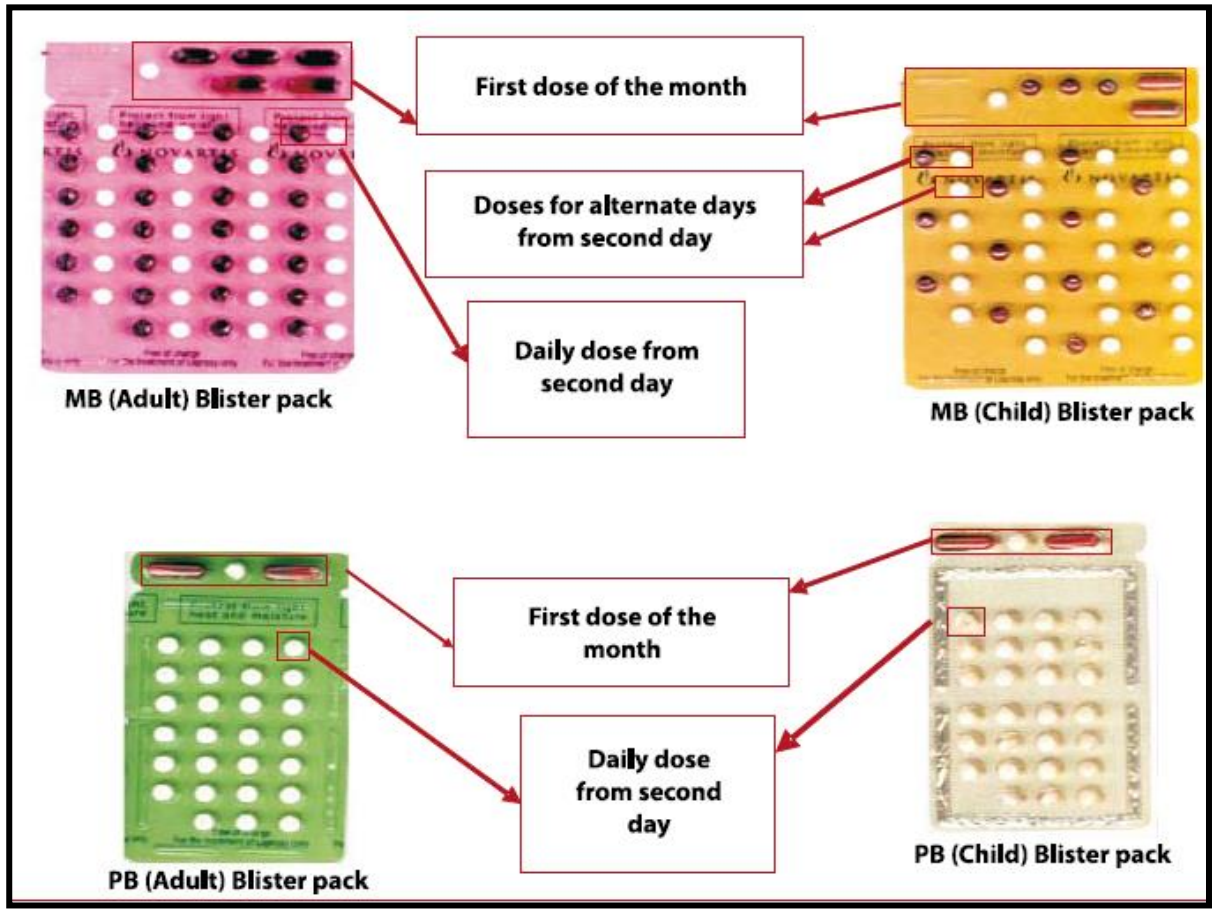
MDT Regimen

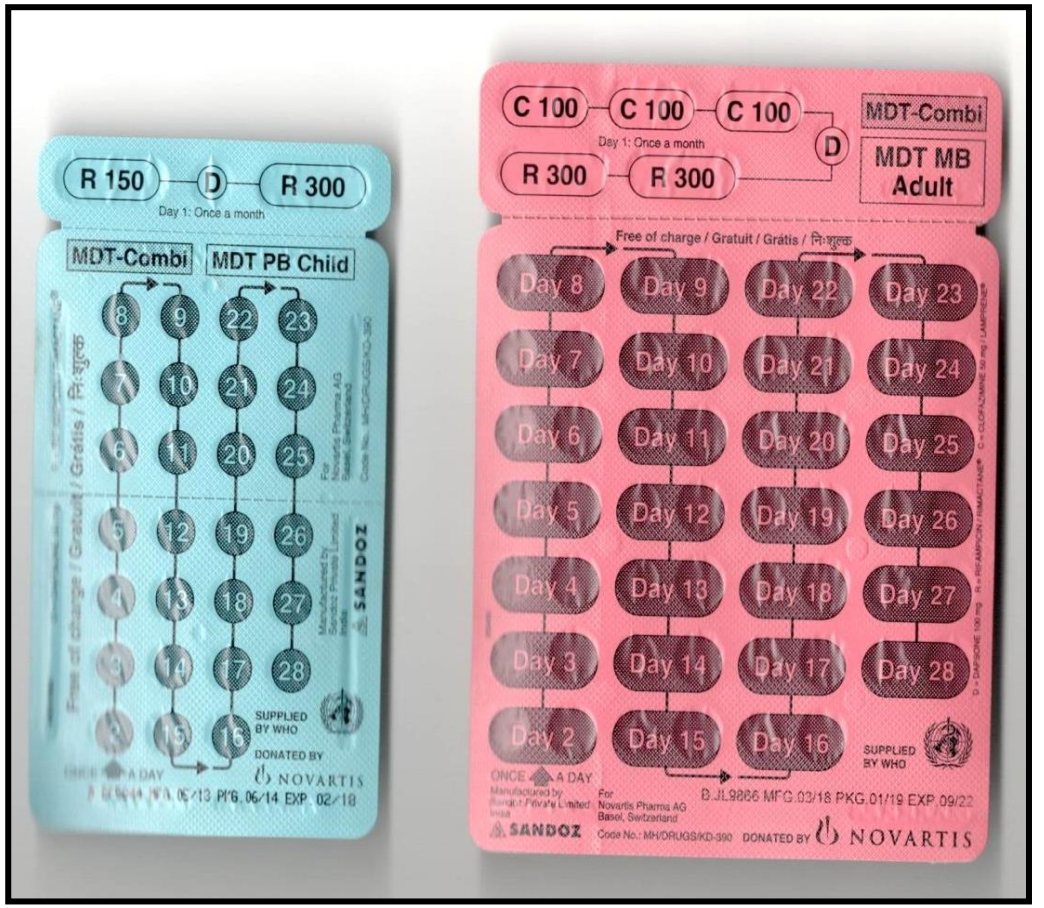
Type of leprosy	Drugs used	Frequency of Administration Adults (children in bracket)	Dosage (adult) 15 years & above	Dosage (Children 10-14 years)#	Dosage Children below 10 years*	Criteria for RFT
MB leprosy	**Rifampicin**	Once monthly	600 mg	450mg	300mg	Completion of 12 monthly pulses in 18 consecutive months **(12 BCP / 18 months)**
	Clofazimine	Monthly	300 mg	150 mg	100mg	
	Dapsone	Daily Once	100 mg	50 mg	25mg	
	Clofazimine	Daily for adults (every other day for children)	50 mg	50mg (alternate days)	50mg (Weekly twice)	
PB leprosy	**Rifampicin**	Once monthly	600 mg	450 mg	300mg	Completion of 6 monthly pulses in 9 consecutive months **(6 BCP / 9 months)**
	Dapsone	Daily	100 mg	50 mg	25mg daily or 50 mg alternate days	

For children 10 – 14 yrs with body weight > 35 kgs, adult BCP should be given

* For children < 10 yrs, doses (as per body weight) should be provided loose after opening appropriate BCP

MDT – Blister Calendar Packs





Rifampicin: 150 & 300 mg

Dapsone: 50 & 100 mg

Clofazimine: 50 & 100 mg

Side effects - Dapsone

	Common side effects	Signs and symptoms	What to do if side effects occur
Minor	Anaemia	Paleness inside the lower eyelids, tongue and fingernails, Tiredness, oedema of feet and breathlessness	Give anti-worm treatment and iron and folic acid tablets. Continue dapsone.
	Abdominal symptoms	Abdominal pain, nausea, and vomiting with high doses	Symptomatic treatment. Reassure the patient Give drug with food
Serious	Severe skin complication (Exfoliate dermatitis) Sulphone hypersensitivity Haemolytic anaemia	Extensive scaling, itching, ulcers in the mouth and eyes, jaundice and reduced urine output Itchy skin rash	Stop Dapsone. Refer to hospital immediately. Never restart.
	Liver damage (Hepatitis)	Jaundice (yellow Colour of skin, eyeballs and urine) Loss of appetite and vomiting	Stop Dapsone. Refer to hospital. Restart after the jaundice subsides
	Kidney damage (Nephritis)	Oedema of face and feet. Reduced urine output	Stop Dapsone. Refer to hospital

Rifampicin

	Side effects	Signs and symptoms	What to do if side effects occur
Minor adverse effects	Red discoloration of body fluids	Reddish coloration of urine, saliva and sweat	Reassure the patient and continue treatment
	Flu like illness	Fever, malaise and body ache	Symptomatic treatment
	Abdominal symptoms	Abdominal pain, nausea, and vomiting	Symptomatic treatment. Reassure the patient Give drug with food
Serious adverse effects	Hepatitis (liver damage)	Jaundice (yellow colour of skin, eyeballs and urine). Loss of appetite and vomiting	Stop Rifampicin. Refer to hospital. Restart after jaundice subsides.
	Allergy	Skin rash or Shock, purpura, renal failure	Stop Rifampicin

Clofazimine

Side effects	Signs and symptoms	What to do if side effects occur
Skin pigmentation (Not Significant)	Brownish-red discoloration of skin, urine, and body fluids	Reassure the patient, it disappears after completion of treatment
Acute Abdominal symptoms	Abdominal pain, nausea and vomiting on high doses	Symptomatic treatment. Reassure the patient Give drug with food If intractable stop clofazimine
Ichthyosis (diminished sweating)	Dryness and scaling of the skin, itching	Apply oil to the skin. Reassure the patient.
Eye	Conjunctival dryness	Moistening eye drops/frequent washing of eyes

Assessing fitness for MDT

- **Jaundice:** wait till subsides
- **Anaemia:** start treatment for anaemia simultaneously along with MDT
- **TB:** if the patient is taking Rifamicin, ensure to take Rifampicin in the dose required for treatment of TB along with other drugs
- **Allergy to sulpha drugs:** known allergic – avoid Dapsone

Follow up of treatment

- All efforts must be made to complete the doses in 6 months / 12 months
- During follow up – side effects of MDT and signs/ symptoms of reaction / neuritis
- Once the patient has completed the required pulses, the treatment is stopped and made **RFT (Release from treatment**)
- Self care
- Complications

Advantages of MDT

- Stops progress of the disease, prevents further complications and reduces chances of relapse
- Interrupt transmission of infection as rapidly as possible
- Reduces the chances of development of resistance to drugs
- Duration of treatment is short & fixed
- Safe, minimal side effects and increased patient compliance

To ensure regularity of treatment

- Adequate counselling at the start of treatment
  - disease / skin lesions
  - duration of treatment
  - method of taking drug
  - regular treatment
  - side effects & reporting
- Regular follow up of patient – timely RFT
- Patients who are absent should be contacted immediately to identify the reasons and take corrective actions.
- Flexibility in MDT delivery

Accompanied MDT (A-MDT)

- Difficult in getting the drugs – underserved areas
- Emergency situations
  - health / pandemic: **COVID – 19**
  - seasonal
  - conflicts / war
- Migration

Given more than one BCP at a time
(usually 3 BCPs are given)

Irregular treatment

- Patients should be reassessed clinically to ascertain the type & any disability
- Treatment history
- Look out for period of discontinuation

Classification	Period of treatment discontinuation	Treatment
PB	< 3 months	Continue the same course
	> 3 months*	**Re-start**
MB	< 6 months	Continue the same course
	> 6 months*	**Re-start**

***Defaulter – Register as other case (re-entered for treatment)**

Treatment regimens for special situations

Patients who cannot take rifampicin

- *Due to* side-effects or intercurrent diseases, such as chronic hepatitis, or who have been infected with rifampicin-resistant *M. leprae*

→

- Daily 50 mg **clofazimine + any 2 drugs (**400 mg **ofloxacin**, 100 mg **minocycline** or 500 mg clarithromycin) – **<u>6 months</u>**
- Followed by daily 50 mg **clofazimine** + any 1drug (100 mg **minocycline** or 400 mg **ofloxacin**) - **<u>18 months</u>**
- If available, ofloxacin may be replaced by **moxifloxacin 400 mg**, which has stronger bactericidal activity against *M. leprae*.

Treatment regimens for special situations

Patients who cannot take Clofazimine

- *Due to* side-effects - skin discolouration

- MDT may be replaced by 400 mg ofloxacin / moxifloxacin daily, or by minocycline 100 mg daily, for **12 months.**
- Alternatively – Rifampicin 600 mg once a month, ofloxacin 400 mg once a month, and minocycline 100 mg once a month for 24 months.

Treatment regimens for special situations

Patients who cannot take Dapsone

- *Due to* side-effects - severe toxic effects
- PB / MB leprosy

- Dapsone to be stopped immediately
- **MB leprosy**:
  - No further modification
- **PB leprosy**:
  - clofazimine in standard dose of MB-MDT

WHO Guidelines for Diagnosis, Treatment and Prevention of Leprosy (2018)

Area of the recommendation	Recommendation
Diagnosis of leprosy	The diagnosis of leprosy may be based on **clinical examination,** with or without slit-skin smears or pathological examination
Diagnosis of leprosy infection	There is currently **no test** recommended to diagnose leprosy infection (latent leprosy) among asymptomatic contacts.
Treatment of leprosy	The same **3-drug regimen** of rifampicin, dapsone and clofazimine may be used for **all leprosy patients**, with a duration of treatment of 6 months for PB leprosy and of 12 months for MB leprosy.
Treatment of drug resistant leprosy	Two of the following second-line drugs: **clarithromycin, minocycline or a quinolone** (ofloxacin, levofloxacin or moxifloxacin), plus **clofazimine daily for 6 months**, followed by **clofazimine plus one of the second-line drugs daily for an additional 18 months.**
Chemoprophylaxis for contacts of leprosy cases	**Single-dose rifampicin (SDR)** may be used for contacts of leprosy patients (adults and children aged 2 years and above), after excluding leprosy and tuberculosis (TB) disease, and in the absence of other contraindications.

Programmatic management of leprosy (3)

Capacity building

- Develop adequate skills for diagnosis & management of cases
- Training of general health care staff
- Regular training & refresher training
- Training data base particulars
- Follow up of training
- PIP – No. trained / No. need to be trained – key healthcare staff

Programmatic management of leprosy (4)

Disability Prevention & Medical Rehabilitation (DPMR) activities

- DPMR – primary / secondary / tertiary level
- Detection of complications & referral
- Assessment of disability status
- Line list of beneficiaries
- Conduction of POD activities
- Self care demonstration & provision of kits
- Provision of MCR / aids & appliances
- RCS referral / surgery – clearing backlog of RCS
- Identification of RCS institutions
- Incentives for RCS
- Social welfare measures – identification & assistance
- Special activities / programmes

Programmatic management of leprosy (5)

Information, Education & Communication (IEC) / BCC

- Generate awareness about leprosy, treatment and reducing stigma & discrimination
- IEC campaigns – schools/colleges, community
- Inter-personal communication (IPC)
- New strategies & methods
- Focus on Behaviour change communication
- Tangible increase in voluntary reporting
- **Involvement of PAL**
- Training of health staffs / volunteers
- Special campaigns – Sparsh Leprosy Awareness Campaign (**SLAC)**
- "**Leprosy Free India"**

Programmatic management of leprosy (6)

Planning, Supervision & Monitoring

- Assess the leprosy situation in the area & action plan
- Planning surveys, field visits - PIP
- Supervision of field level health care workers
- Record maintenance - Records & reports - **Complete, accurate & timely**
- Monitoring & Evaluation of program performance – Indicators
- Training need assessment
- **“NIKUSTH”** implementation
- Review meetings & feedback – all levels

Involvement of NGOs in NLEP

- Partnership with NGOs is envisaged under NLEP and the objective is to provide uniformity in diagnosis, treatment and monitoring through a wider programme base to maximize access to NLEP services
- Complement and supplement the government efforts in reducing the disease burden
- Bring about betterment in the quality of life and socio-economic condition of the affected persons and families.

Activities:

1. IEC/BCC and stigma reduction
2. Referral of suspects, Diagnosis and provision of MDT
3. Follow up of cases and treatment adherence
4. Out-patient and In-patient care
5. DPMR services
6. Referral & conduction of RCS

Grant in aid Schemes for NGOs

- Grant-in-aid schemes are available under NLEP for the NGOs to build partnership and implement the schemes.
- > 285 NGOs working in the field of leprosy throughout the country & 54 NGOs are getting grant-in-aid from Government of India.

1. Scheme 1A - Designated Referral Centres (DRC 1A) Out-patient facility
2. Scheme 1B - Designated Referral Centres (DRC 1B) Out-patient and In-patient
3. Scheme 1C - Designated Referral Centres (DRC 1C) Out-patient, In-patient and RCS
4. Scheme 2 - Comprehensive Care for Underserved Areas
5. Scheme 3 - Contact Survey and Home Based Self Care
6. Scheme 4 - Disability Care Centre - Leprosy Colonies
7. Scheme 5 - Advocacy Communication and Social Mobilisation with activities to reduce Stigma and Discrimination in Leprosy
8. Scheme 6 - Partnering with community for elimination of leprosy

NGO – Eligibility Criteria

- Registration of the NGO for at least last two years
- Necessary infrastructure and manpower support
- Experience of work related to leprosy or health or community development as appropriate in public sector.

➢ Applications requesting for the Grant-in-aid under the NGO scheme shall be made through the District Leprosy Officer (DLO) to the State Leprosy Officer (SLO).

ILEP

International Federation of Anti-leprosy Associations

- ILEP is a consortium of international non-governmental organisations with a shared desire to see a world free from leprosy

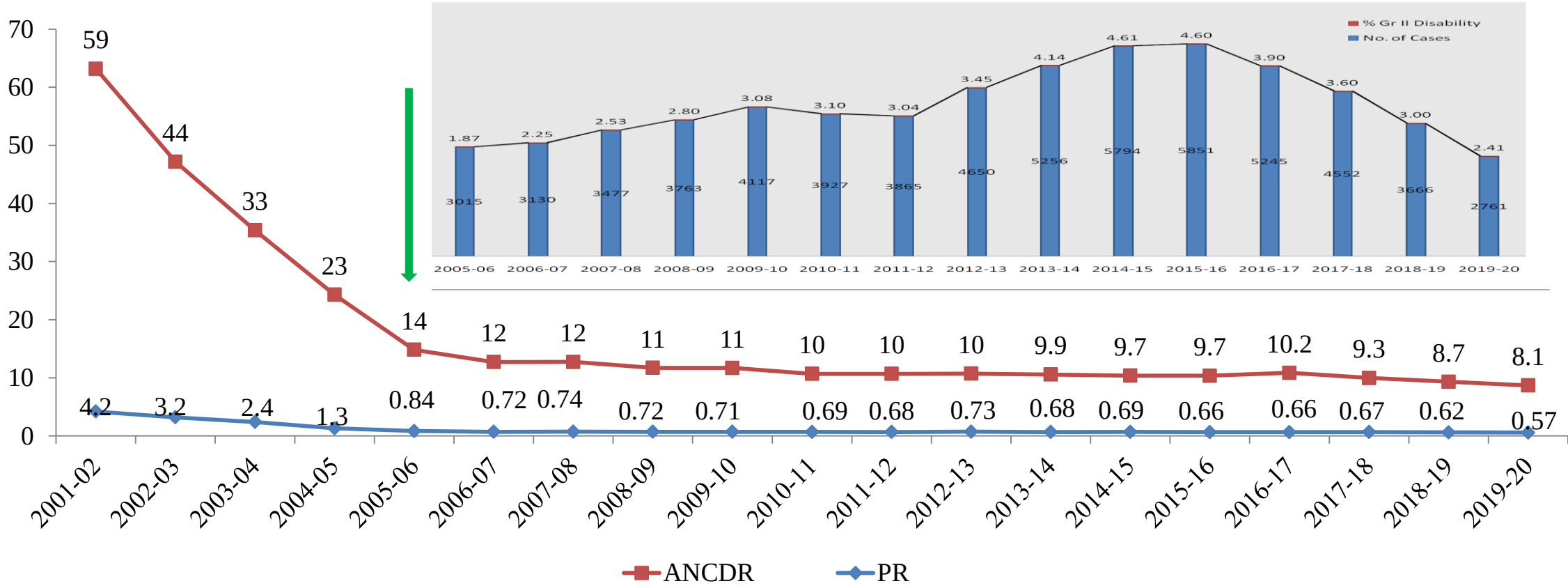
Members:

1. Americal Leprosy Missions
2. Associazione Italian Amici di Raoul Follereau (AIFO)
3. German Leprosy and Tuberculosis Relief Association (DAHW)
4. Damien Foundation Belgium
5. effect:hope
6. FAIRMED
7. Foundation Raoul Follereau
8. Fontilles
9. Lepra
10. Leprosy Relief Canada
11. NLR International
12. Sasakawa Health Foundation
13. The Leprosy Mission International

NLEP – Budget under NHM

FMR codes	Major Heads	Total Budget proposed for FY	Total Budget approved for FY
1.	Service Delivery - Facility based		
2.	Service Delivery – community based		
3.	Community intervention		
6.	Procurement		
9.	Training & Capacity Building		
11.	IEC/BCC		
12.	Printing		
15.	PPP		
16.	Programme Management		
	Total Budget		

LEPROSY TREND: INDIA



Year	1981	1985	1995	2005	2014-15	2018-19	2019-20
New Cases detected	39,53,700	32,00,000	8,07,257	1,48, 910	127334	120334	114451

NLEP Key Indicators - India

Financial year	Prevalence		New case detection		MB cases		Children		Female		G2D		
	Number	Per 10,000	Number	Per 100,000	No	%	No	%	No	%	No	%	Per million
2008-09	86331	**0.72**	134184	**11.2**	64949	**48.4**	13610	**10.1**	47188	**35.2**	3763	2.8	**3.1**
2009-10	87190	**0.71**	133717	**10.9**	64782	**48.4**	13331	**10.0**	47361	**35.4**	4117	3.1	**3.4**
2010-11	83041	**0.69**	126800	**10.5**	61603	**48.6**	12463	**9.8**	45896	**36.2**	3927	3.1	**3.2**
2011-12	83687	**0.68**	127295	**10.3**	63562	**49.9**	12305	**9.7**	47111	**37.0**	3865	3.0	**3.1**
2012-13	91743	**0.73**	134752	**10.8**	67268	**49.9**	13387	**9.9**	50828	**37.7**	4650	3.5	**3.7**
2013-14	86147	**0.68**	126913	**10.0**	65337	**51.5**	12043	**9.5**	46845	**36.9**	5256	4.1	**4.1**
2014-15	88833	**0.69**	125785	**9.7**	66436	**52.8**	11365	**9.0**	46379	**36.9**	5794	4.6	**4.5**
2015-16	86028	**0.66**	127334	**9.7**	65595	**51.3**	11389	**8.9**	48808	**38.3**	5851	4.6	**4.5**
2016-17	88199	**0.66**	135485	**10.2**	67160	**49.6**	11770	**8.7**	53072	**39.2**	5245	3.9	**3.9**
2017-18	90709	**0.67**	126164	**9.3**	64187	**50.9**	10287	**8.2**	48821	**38.7**	4552	3.6	**3.3**
2018-19	85302	**0.62**	120334	**8.7**	62910	**52.3**	9227	**7.7**	46880	**39.0**	3666	3.0	**2.6**
2019-20	79898	**0.57**	114451	**8.1**	62119	**54.2**	7859	**6.9**	44877	**39.2**	2761	2.4	**2.0**

Source: Independent Evaluation of the Indian NLEP.WHO; Nov 2019 & WHO/WER/36,2020;95:417-440

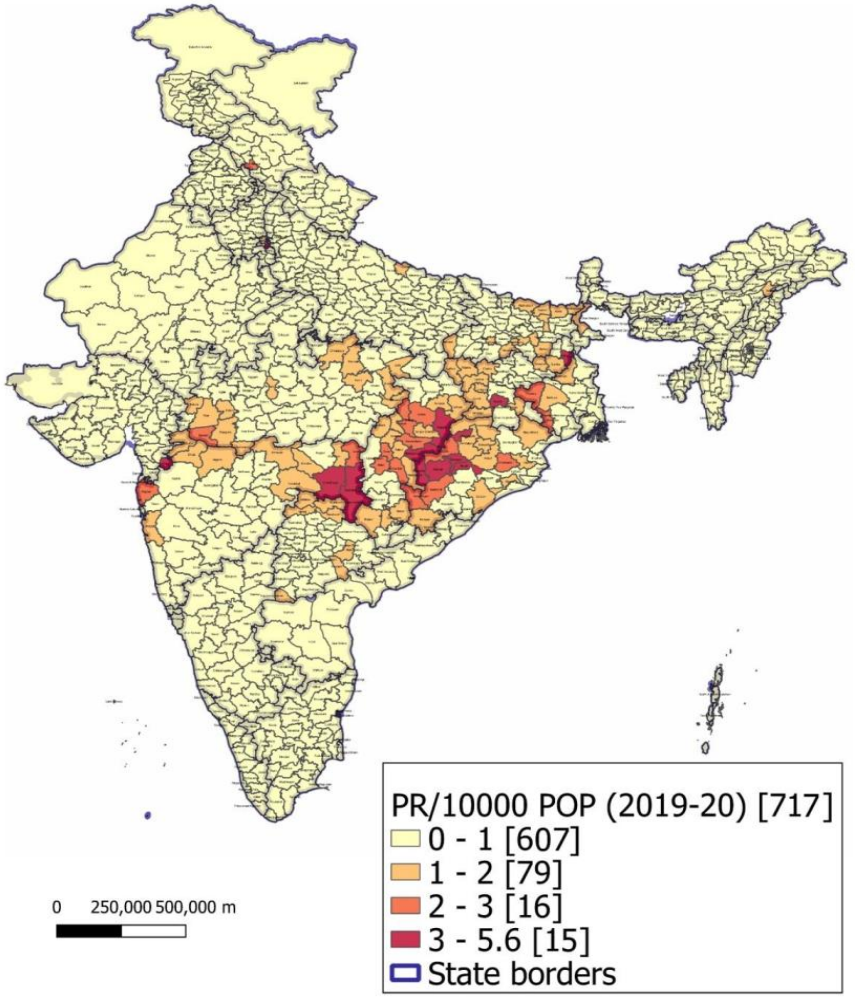
Achievements Vs Targets

Indicator	Target	Baseline (2011-12)	Target (2017)	Achievement (March 2019)
Prevalence Rate	<1/10000 popl.	543 districts (85%)	642 districts (100%)	587 districts (91%)
ANCDR	<1/100000 popl.	445 districts (69%)	642 districts (100%)	514 districts (80%)
MB cure rate (%)		90.5	>95	93.6
PB cure rate (%)		95.3	>97	94
G2D proportion	35% reduction	3%	2%	3%

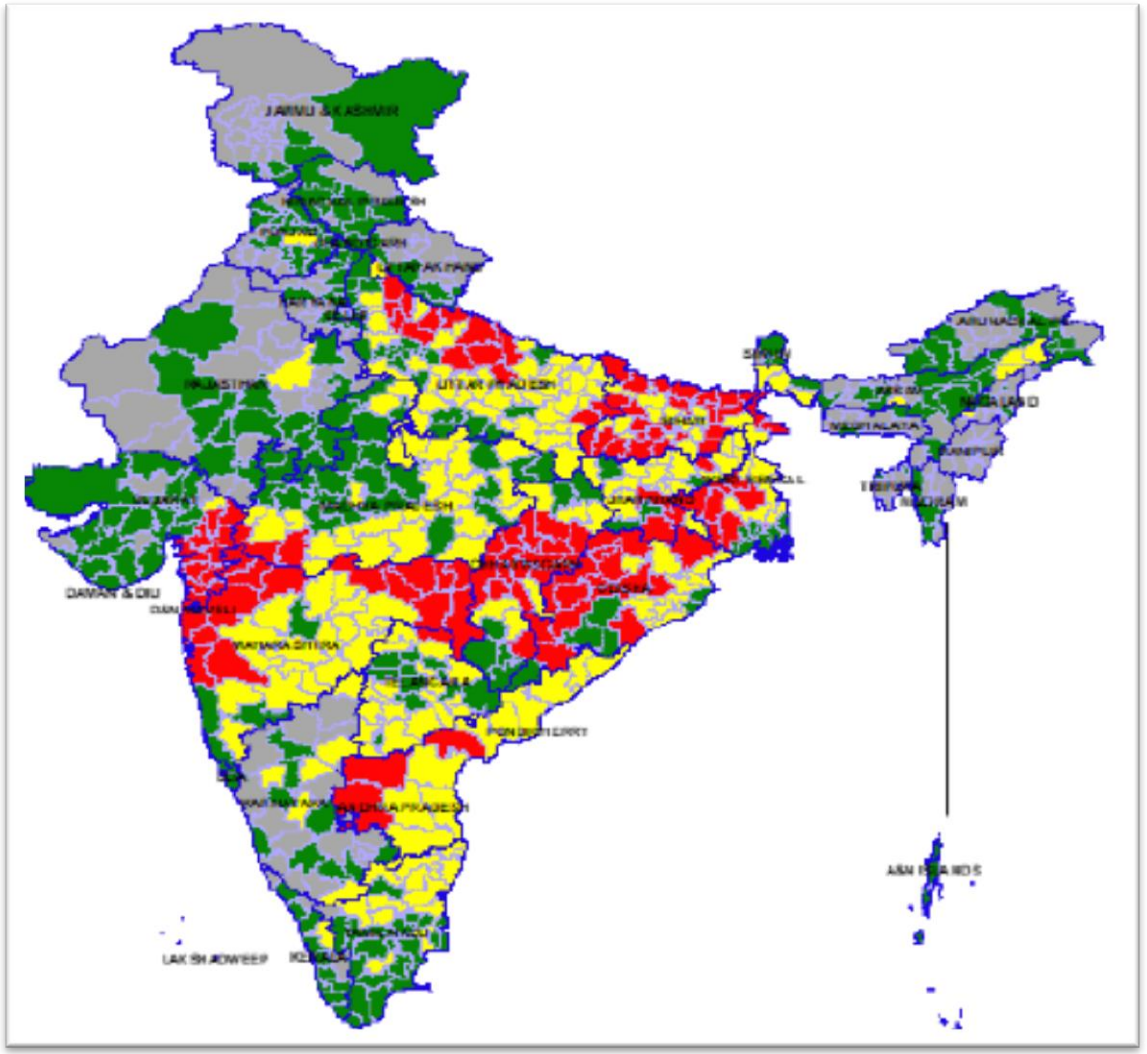
Source: Independent Evaluation of the Indian NLEP.WHO; Nov 2019

Leprosy status at district level (2019-20)

Indicators	Districts (717)
ANCDR [<10/100000 pop]	552 (77%)
Prevalence [< 1/10000 pop]	607 **(85%)**
G2D [< 1 case/1000000 pop]	423 (59%)
Child rate [< 1 /100000 pop]	607 (85%)



Mapping of districts by level of Endemicity



(n = 708 districts)

Districts	Total (%)
High Endemic	118 (17)
Moderate Endemic	206 (29)
Low Endemic	260 (37)
Sporadic cases only	124 (17)

Source: Independent Evaluation of the Indian NLEP.WHO; Nov 2019

WHO and Strategic and Technical Advisory Group for NTD [Generic framework 2015]

Elimination as a Public Health Problem

- related to both infection and disease.
- defined by **achievement of measurable global targets set by WHO** in relation to a specific disease. When reached, continued actions are required to maintain the targets and/or to advance the interruption of transmission

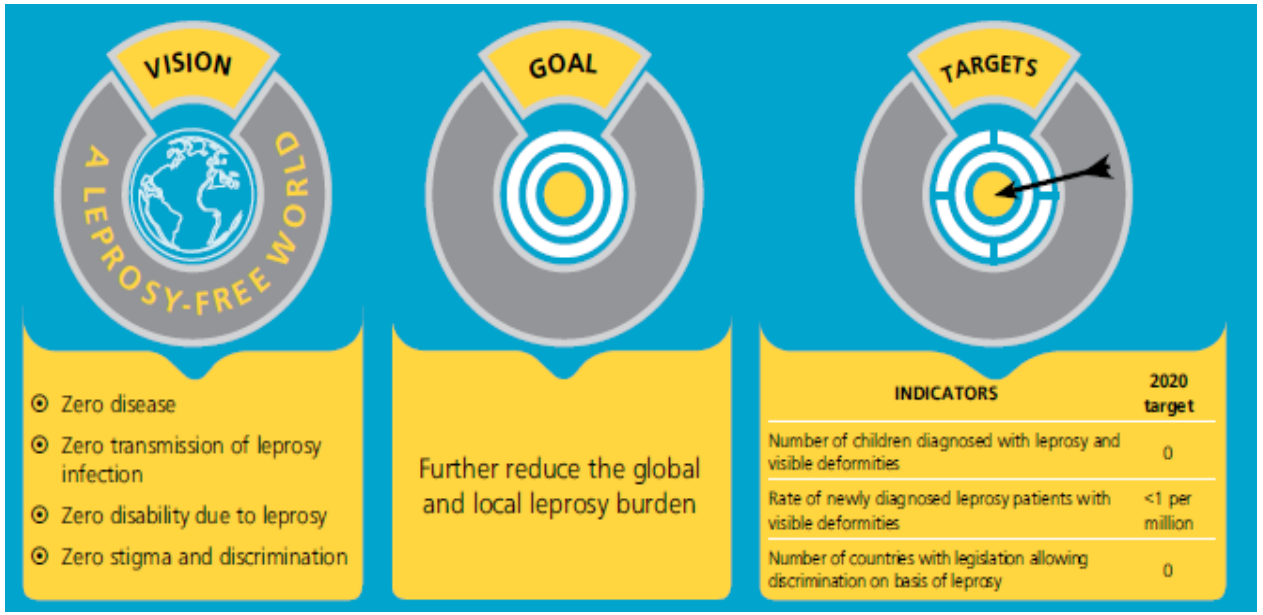
Prevalence < 1 case/10000 population

Elimination of transmission

- also referred to as interruption of transmission
- *mean reduction to **zero of the incidence of infection** caused by a specific pathogen in a defined geographical area*, with minimal risk of **reintroduction**, as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required

Zero new case of leprosy

GLOBAL LEPROSY STRATEGY



- Vision: Zero leprosy
  - Zero infection and disease, zero disability, zero stigma and discrimination
- Goal:
  - Elimination of leprosy (interruption of transmission)
- Global targets for 2030
  - 120 countries reporting zero new autochthonous cases
  - 70% reduction in annual number of new cases detected
  - 90% reduction in rate (per million) of new cases with grade-2 disability
  - 90% reduction in rate (per million children) of new child cases with leprosy

Impact indicator	2020	2023	2025	2030
Number of countries with zero new cases	50	75	95	120
Annual number of new leprosy cases detected	184,000	148,000	123,000	63,000
Rate (per million pop.) of new cases with G2D	1.3	0.92	0.68	0.12
Rate (per million children) of new child cases with leprosy	7.81	5.66	4.24	0.77

2016 – 2020

"Accelerating towards a leprosy free world"

2021 – 2030

"Towards Zero Leprosy"

GLOBAL LEPROSY STRATEGY
What does it mean in terms of numbers to India?

S.No	Impact Indicators	Target	GLS 2016-2020
1.	No. of children diagnosed with leprosy and visible deformities	0	162 → 63 (>60%) ↓
2.	Rate of newly diagnosed leprosy patients with visible deformities	<1/million	4.5 → 1.96 (>56%) ↓
3.	No. of laws / legislation allowing discrimination on the basis of leprosy	0	119 → 102 (14%) ↓

S.No	Impact Indicators	Target	GLS 2021-2030
1.	Annual No. of new cases detected	70% ↓	**110000** → **34,000**
2.	Rate of newly diagnosed leprosy patients with G2D (per million popl)	90% ↓	**1.96** → **0.2**
3.	Rate of new child cases with leprosy (per million child popl)	90% ↓	**20** → **2**

Leprosy - Elimination / Eradication

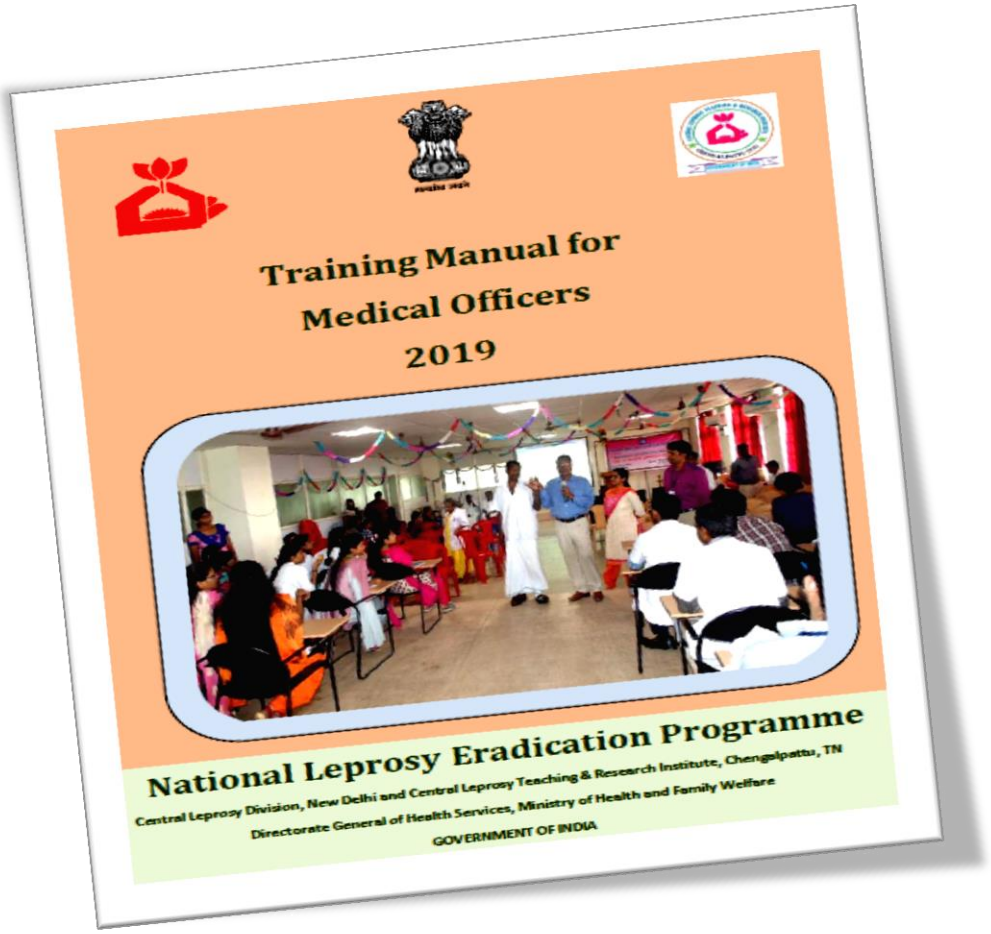
- Diagnosed by clinical signs
- Availability of effective treatment to interrupt transmission
- Single significant reservoir – Humans
- Chemoprophylaxis /+ immunoprophylaxis
- Human resources
- Country experiences
- National & International efforts

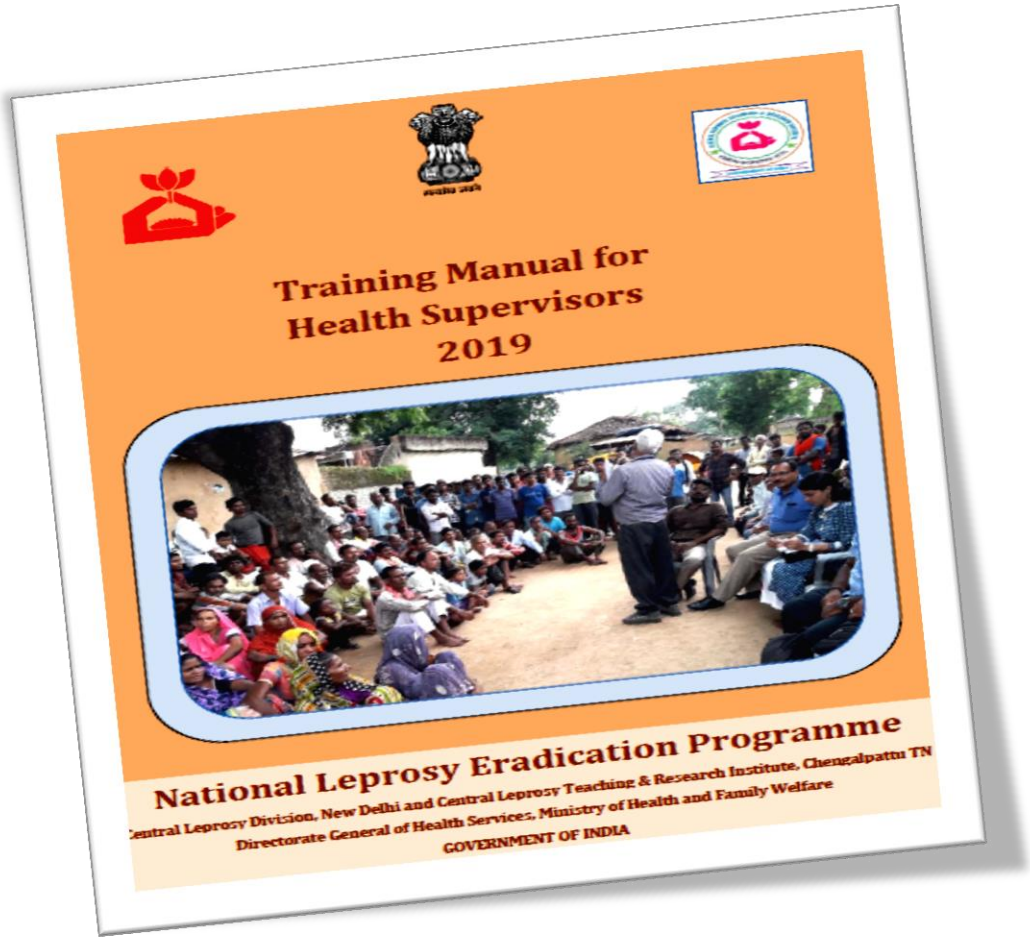
NLEP - Challenges

- Weak link in establishing the transmission chain
- long & variable incubation period
- Difficult to diagnose subclinical infections
- Reactions & nerve damage
- Effective vaccine not available
- Involvement of health workers after integration
- Lack of trained manpower – Knowledge gap & skills
- Need for new drugs / regimens

- Hidden cases - case detection – less voluntary reporting
- Stigma & discrimination
- Notification from private providers
- Disability / loss of productivity - DPMR activities
- Weak Monitoring & supervision
- Underserved /difficult to reach areas/ Migrants
- Lack of Research in new tools / interventions
- Drug resistance
- Reduced resource allocation

Training Manuals





Available @ www.cltri.gov.in

Take home message

- NLEP – Objectives & current strategies
- Implementation of NLEP services
- Programmatic management of leprosy

STAY SAFE
&
STAY HEALTHY

 # COVID – 19 Vaccination

"Leprosy work is not merely medical relief; it is transforming frustration of life in to joy of dedication, personal ambition into selfless service"

- Mahatma Gandhi

Gandhiji With Leprosy patient

Thank you

www.cltri.gov.in

www.nlep.nic.in

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